

09-06-02 M.M.

#6 \$ 0300  
136x Seq

Express Mail No.: EL 500 575 839 US

THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Chae, Young-Jin

Confirmation No.: 8647

Application No.: 10/071,476

Group Art Unit: Not Yet Assigned

Filed: February 8, 2002

Examiner: Not Yet Assigned

For: PEPTIDE VECTOR

Attorney Docket No.: 10933-017

**TRANSMITTAL OF SEQUENCE LISTING UNDER 37 C.F.R. § 1.821**

Assistant Commissioner for Patents  
Washington, DC 20231

Sir:

In response to the Notice to Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures ("the Notice") mailed June 5, 2002, a copy of which is enclosed, and in accordance with 37 C.F.R. § 1.821, Applicants submit herewith, in connection with the above-identified patent application, a Sequence Listing in paper and computer readable form pursuant to 37 C.F.R. §§ 1.821(c) and (e). Applicants also submit herewith a Petition for Extension of Time for Response to the Notice for one month from August 5, 2002 to September 5, 2002.

I hereby state that the content of the paper and computer readable copies of the Substitute Sequence Listing, submitted in accordance with 37 C.F.R. §§ 1.821(c) and (e), respectively, are the same. I hereby state that the submission herein under 37 C.F. R. § 1.821(g) does not include new matter.

Respectfully submitted,

Date September 4, 2002

*Anthony M. Insogna* by *Yehsiu Moon* 35.203  
Anthony M. Insogna *Ref. No. 57042* (Reg. No.)

**PENNIE & EDMONDS LLP**  
1155 Avenue of the Americas  
New York, N.Y. 10036-2711  
(212) 790-9090

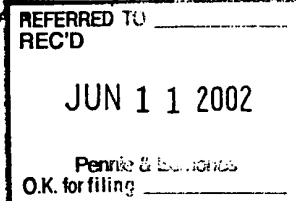


UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

| APPLICATION NUMBER | FILING/RECEIPT DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NUMBER |
|--------------------|---------------------|-----------------------|------------------------|
| 10/071,476         | 02/08/2002          | Young-Jin Chae        | 10933-017-999          |

20583  
PENNIE AND EDMONDS  
1155 AVENUE OF THE AMERICAS  
NEW YORK, NY 100362711



CONFIRMATION NO. 8647

FORMALITIES LETTER



\*OC000000008233164\*

Date Mailed: 06/05/2002

*Sequence Listing*  
8/5/02

### NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

*A copy of this notice MUST be returned with the reply.*

*NK*  
Customer Service Center  
Initial Patent Examination Division (703) 308-1202

PART I - ATTORNEY/APPLICANT COPY

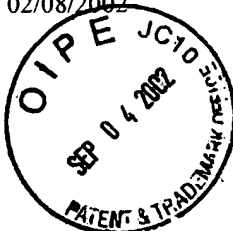


## UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

| APPLICATION NUMBER | FILING/RECEIPT DATE | FIRST NAMED APPLICANT | ATTORNEY DOCKET NUMBER |
|--------------------|---------------------|-----------------------|------------------------|
| 10/071,476         | 02/08/2002          | Young-Jin Chae        | 10933-017-999          |

20583  
PENNIE AND EDMONDS  
1155 AVENUE OF THE AMERICAS  
NEW YORK, NY 100362711



CONFIRMATION NO. 8647

## FORMALITIES LETTER



\*OC00000008233164\*

Date Mailed: 06/05/2002

### NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

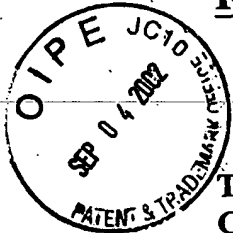
For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

*A copy of this notice **MUST** be returned with the reply.*

*NJ*  
Customer Service Center  
Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE



## **RAW SEQUENCE LISTING** **ERROR REPORT**

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



0570  
0513

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/071,476  
Source: OIP E  
Date Processed by STIC: 5/16/02

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002

# Raw Sequence Listing Error Summary

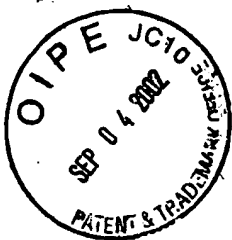
## ERROR DETECTED

## SUGGESTED CORRECTION

SERIAL NUMBER: 10/071,476

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos      The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2      Invalid Line Length      The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3      Misaligned Amino  
    Numbering      The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4      Non-ASCII      The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5      Variable Length      Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6      PatentIn 2.0  
    "bug"      A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7      Skipped Sequences  
    (OLD RULES)      Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped  
  
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8      Skipped Sequences  
    (NEW RULES)      Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000
- 9      Use of n's or Xaa's  
    (NEW RULES)      Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa; and which residue n or Xaa represents.
- 10      Invalid <213>  
    Response      Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11   ✓   Use of <220>      Sequence(s)   1   missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12      PatentIn 2.0  
    "bug"      Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13      Misuse of n      n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



OIPE

Does Not Comply  
Corrected Diskette Needed

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/071,476

DATE: 05/16/2002

TIME: 09:52:36

Input Set : A:\Sequence Listing.app

Output Set: N:\CRF3\05162002\J071476.raw

1 <110> APPLICANT: CHAE, Young Jin  
 3 <120> TITLE OF INVENTION: Peptide vector  
 5 <130> FILE REFERENCE: 01PG035  
 C--> 7 <140> CURRENT APPLICATION NUMBER: US/10/071,476  
 C--> 7 <141> CURRENT FILING DATE: 2002-05-03  
 7 <150> PRIOR APPLICATION NUMBER: KR 2001-6587  
 8 <151> PRIOR FILING DATE: 2001-02-10  
 10 <160> NUMBER OF SEQ ID NOS: 5  
 12 <170> SOFTWARE: KopatentIn 1.71  
 14 <210> SEQ ID NO: 1  
 15 <211> LENGTH: 16  
 16 <212> TYPE: PRT  
 17 <213> ORGANISM: Artificial Sequence  
 19 <220> FEATURE:  
 20 <223> OTHER INFORMATION: N-terminal Gly is acetylated, 2nd a.a can be replaced by Ile,  
 4th 21 a.a can be replaced by Leu, 10th a.a can be replaced by Arg, 11th  
 22 a.a can be replaced by Lys, 13th a.a can be replaced by one of  
 23 Leu, Ile, Arg, Gln, Asn and Ser.  
 26 <400> SEQUENCE: 1  
 27 Gly Leu Gly Ile Ser Tyr Gly Arg Lys Lys Arg Arg Gly Arg Arg Cys  
 28 1 5 10 15  
 33 <210> SEQ ID NO: 2  
 34 <211> LENGTH: 17  
 35 <212> TYPE: DNA  
 36 <213> ORGANISM: Artificial Sequence  
 38 <220> FEATURE:  
 39 <223> OTHER INFORMATION: Linker-1 DNA : 5' end of C forms ester bond with Cys.  
 42 <400> SEQUENCE: 2  
 43 ctaatacgac tcactat 17  
 46 <210> SEQ ID NO: 3  
 47 <211> LENGTH: 16  
 48 <212> TYPE: DNA  
 49 <213> ORGANISM: Artificial Sequence  
 51 <220> FEATURE:  
 52 <223> OTHER INFORMATION: Linker-2 DNA  
 55 <400> SEQUENCE: 3 16  
 56 tagtgagtcg tattag  
 59 <210> SEQ ID NO: 4  
 60 <211> LENGTH: 21  
 61 <212> TYPE: DNA  
 62 <213> ORGANISM: Artificial Sequence  
 64 <220> FEATURE:  
 65 <223> OTHER INFORMATION: GFP-f specific primer

Explanation for artificial sequence  
is required! See error summary  
Sheet item 11

## RAW SEQUENCE LISTING

DATE: 05/16/2002

PATENT APPLICATION: US/10/071,476

TIME: 09:52:36

Input Set : A:\Sequence Listing.app

Output Set: N:\CRF3\05162002\J071476.raw

---

|   |    |
|---|----|
| 68 <400> SEQUENCE: 4                              |    |
| 69 tgaaggtgat gcaacatacg g                        | 21 |
| 72 <210> SEQ ID NO: 5                             |    |
| 73 <211> LENGTH: 20                               |    |
| 74 <212> TYPE: DNA                                |    |
| 75 <213> ORGANISM: Artificial Sequence            |    |
| 77 <220> FEATURE:                                 |    |
| 78 <223> OTHER INFORMATION: GFP-r specific primer |    |
| 81 <400> SEQUENCE: 5                              |    |
| 82 gtcttgtagt tcccgatc                            | 20 |

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/071,476

DATE: 05/16/2002

TIME: 09:52:37

Input Set : A:\Sequence Listing.app

Output Set: N:\CRF3\05162002\J071476.raw

---

L:7 M:270 C: Current Application Number differs, Replaced Current Application No  
L:7 M:271 C: Current Filing Date differs, Replaced Current Filing Date